

LIBRARY
BUREAU OF THE CENSUS

census

Ref

HD

9724

,U52X

19876

nos: 33A-

39D

THEORY OF THE EARTH

CHAPTER I

THE EARTH IS A SPHERE, AND ITS SURFACE IS COVERED BY A THIN LAYER OF WATER. THE AIR IS A GASEOUS ENVELOPE, AND THE SOIL IS A SOLID ENVELOPE. THE EARTH IS DIVIDED INTO FOUR PARTS, OR QUARTERS, BY TWO GREAT CIRCLES, THE EQUATOR AND THE MERIDIAN. THE EQUATOR IS A CIRCLE WHICH DIVIDES THE EARTH INTO TWO EQUAL PARTS, THE NORTH AND SOUTH HALVES. THE MERIDIAN IS A CIRCLE WHICH DIVIDES THE EARTH INTO TWO EQUAL PARTS, THE EAST AND WEST HALVES. THE EQUATOR AND THE MERIDIAN INTERSECT AT RIGHT ANGLES AT THE CENTRE OF THE EARTH.



THE EARTH IS A SPHERE, AND ITS SURFACE IS COVERED BY A THIN LAYER OF WATER. THE AIR IS A GASEOUS ENVELOPE, AND THE SOIL IS A SOLID ENVELOPE. THE EARTH IS DIVIDED INTO FOUR PARTS, OR QUARTERS, BY TWO GREAT CIRCLES, THE EQUATOR AND THE MERIDIAN. THE EQUATOR IS A CIRCLE WHICH DIVIDES THE EARTH INTO TWO EQUAL PARTS, THE NORTH AND SOUTH HALVES. THE MERIDIAN IS A CIRCLE WHICH DIVIDES THE EARTH INTO TWO EQUAL PARTS, THE EAST AND WEST HALVES. THE EQUATOR AND THE MERIDIAN INTERSECT AT RIGHT ANGLES AT THE CENTRE OF THE EARTH.



PRELIMINARY REPORT
INDUSTRY SERIES

1987
Census of
Manufactures

MC87-I-34A(P)
Issued April 1989

METAL CANS, CUTLERY, HANDTOOLS, AND GENERAL HARDWARE

Industries 3411, 3412, 3421, 3423, 3425, and 3429

INTRODUCTION

This report presents preliminary statistics from the 1987 Census of Manufactures for those establishments classified in the industries listed above. These data will be superseded by a more comprehensive final paperbound report. The method of data collection and use of administrative data are discussed in detail in the appendix.

All dollar figures included in this report are at prices current for the year specified and, therefore, unadjusted for changes in price levels. Consequently, when making comparisons to prior years, users should take into consideration the inflation that has occurred.

The definitions of these industries are the same as those used in the 1987 Standard Industrial Classification (SIC) Manual.¹

INDUSTRY 3411, METAL CANS

In the 1987 Census of Manufactures, Industry 3411, Metal Cans, had employment of 37.7 thousand. The employment figure was 23 percent below the 49.0 thousand reported in 1982. Compared with 1986, employment in 1987 decreased 10 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$10.7 billion.

The cost of materials and services used by establishments in this industry amounted to \$7.1 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS

In the 1987 Census of Manufactures, Industry 3412, Metal Barrels, Drums, and Pails, had employment of 8.8 thousand. The employment figure was 11 percent below the 9.9 thousand reported in 1982. Compared with 1986, employment in 1987 increased 21 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$1.1 billion.

The cost of materials and services used by establishments in this industry amounted to \$715.7 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3421, CUTLERY

In the 1987 Census of Manufactures, Industry 3421, Cutlery, had employment of 10.5 thousand. The employment figure was 19 percent below the 13.0 thousand reported in 1982. Compared with 1986, employment in 1987 decreased 10 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$1.1 billion.

¹Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

Address inquiries to Bureau of the Census, Industry Division, Washington, DC 20233, or call David Dupree (301) 763-7304.

U.S. Department of Commerce
BUREAU OF THE CENSUS

For sale by Superintendent of Documents, U.S. Government
Printing Office, Washington, DC 20402.

BUREAU OF THE CENSUS
LIBRARY



The cost of materials and services used by establishments in this industry amounted to \$250.7 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.,

In the 1987 Census of Manufactures, Industry 3423, Hand and Edge Tools, N.E.C., had employment of 41.9 thousand. The employment figure was 4 percent above the 40.4 thousand reported in 1982.

The total value of shipments for establishments classified in this industry was \$3.6 billion.

The cost of materials and services used by establishments in this industry amounted to \$1.4 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3425, SAW BLADES AND HANDSAWS

In the 1987 Census of Manufactures, Industry 3425, Saw Blades and Handsaws, had employment of 7.6 thousand. The employment figure was 3 percent above the 7.4 thousand reported in 1982.

The total value of shipments for establishments classified in this industry was \$655.6 million.

The cost of materials and services used by establishments in this industry amounted to \$257.2 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3429, HARDWARE, N.E.C.

In the 1987 Census of Manufactures, Industry 3429, Hardware, N.E.C., had employment of 87.0 thousand. The employment figure was 9 percent above the 80.1 thousand reported in 1982. Compared with 1986, employment in 1987 increased 6 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$8.1 billion.

The cost of materials and services used by establishments in this industry amounted to \$3.6 billion in 1987. Data on specific materials consumed appear in table 3.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in the tables in this publication:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(NC)	Not comparable.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half the unit shown.
do	Ditto.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
pt.	Part.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, doz, bbl, and s tons, are used in the customary sense.

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone
Census/ASM		
Durables	Kenneth Hansen	(301) 763-7304
Nondurables	Michael Zampogna	(301) 763-2510
Current Industrial Reports		
Durables	Malcolm Bernhardt	(301) 763-2518
Nondurables	Thomas Flood	(301) 763-5911
Import/Export Publications	Foreign Trade Division	(301) 763-5140
Industry Analysis and Forecasts	International Trade Administration	(202) 377-4356

Table 1. Historical Statistics for the Industry: 1987 and Earlier Years

[Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

Year ¹	Companies ² (no.)	All establishments ³		All employees		Production workers			Value added by manufac- ture ⁴ (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expen- ditures (million dollars)	End-of- year invent- ories ⁴ (million dollars)	Ratios	
		Total (no.)	With 20 employ- ees or more (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						Special- ization (per- cent)	Cover- age (per- cent)
INDUSTRY 3411, METAL CANS															
1987 Census ----	(NA)	347	244	37.7	1 283.3	31.1	65.9	1 022.6	3 627.6	7 066.6	10 677.4	327.2	1 362.1	(NA)	(NA)
1986 ASM ----	(NA)	(NA)	(NA)	41.8	1 370.0	35.0	72.3	1 102.2	3 773.9	7 351.2	11 068.7	362.7	1 287.5	(NA)	(NA)
1985 ASM ----	(NA)	(NA)	(NA)	44.2	1 399.1	37.1	76.5	1 114.3	3 736.3	7 886.8	11 643.9	263.6	1 332.1	(NA)	(NA)
1984 ASM ----	(NA)	(NA)	(NA)	45.7	1 364.9	38.2	78.9	1 086.4	3 883.2	7 778.8	11 623.2	204.2	1 382.7	(NA)	(NA)
1983 ASM ----	(NA)	(NA)	(NA)	46.2	1 344.3	38.5	78.3	1 062.9	3 757.0	7 276.2	10 961.5	178.1	1 326.3	(NA)	(NA)
1982 Census ----	168	397	294	49.0	1 334.5	40.8	81.5	1 066.4	4 071.7	7 046.8	11 132.8	247.0	1 338.8	98	99
1981 ASM ----	(NA)	(NA)	(NA)	50.3	1 297.2	41.3	86.3	1 038.7	3 828.6	6 577.1	10 448.0	352.8	1 284.3	(NA)	(NA)
1980 ASM ----	(NA)	(NA)	(NA)	53.6	1 255.0	44.4	93.7	1 011.8	3 978.1	6 188.1	10 087.0	205.2	1 357.5	(NA)	(NA)
1979 ASM ----	(NA)	(NA)	(NA)	57.6	1 216.7	48.2	101.7	989.3	3 905.2	6 091.9	9 892.3	215.1	1 292.3	(NA)	(NA)
1978 ASM ----	(NA)	(NA)	(NA)	58.9	1 141.6	49.4	103.0	928.0	3 351.1	5 652.5	8 972.3	205.3	1 110.0	(NA)	(NA)
1977 Census ----	153	403	300	59.8	1 066.3	50.2	106.4	870.8	3 154.3	5 068.7	8 142.8	176.9	1 032.9	96	98
1976 ASM ----	(NA)	(NA)	(NA)	61.1	982.1	51.2	107.0	798.8	2 764.2	4 509.6	7 230.8	131.0	882.9	(NA)	(NA)
1975 ASM ----	(NA)	(NA)	(NA)	62.7	909.9	52.2	109.8	732.4	2 547.7	4 164.5	6 738.7	232.2	848.0	(NA)	(NA)
1974 ASM ----	(NA)	(NA)	(NA)	69.1	893.1	58.7	123.2	730.3	2 649.6	3 505.1	6 024.6	192.4	1 001.3	(NA)	(NA)
1973 ASM ----	(NA)	(NA)	(NA)	69.8	811.3	60.2	128.0	672.4	2 083.7	2 867.0	4 952.6	144.9	652.2	(NA)	(NA)
1972 Census ----	133	396	309	68.5	740.7	58.7	123.7	611.3	1 815.8	2 711.9	4 510.8	138.1	610.2	96	99
INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS															
1987 Census ----	(NA)	165	99	8.8	206.1	6.6	14.2	139.3	405.5	715.7	1 122.0	14.0	161.1	(NA)	(NA)
1986 ASM ----	(NA)	(NA)	(NA)	7.3	169.7	5.6	12.1	110.0	339.5	547.6	888.2	15.3	130.1	(NA)	(NA)
1985 ASM ----	(NA)	(NA)	(NA)	7.8	177.1	6.1	13.1	119.6	341.1	577.8	923.1	17.0	142.9	(NA)	(NA)
1984 ASM ----	(NA)	(NA)	(NA)	9.2	194.8	7.2	15.1	131.4	369.6	652.6	1 020.4	19.0	176.5	(NA)	(NA)
1983 ASM ----	(NA)	(NA)	(NA)	10.2	200.1	8.1	15.9	143.8	439.6	753.7	1 152.7	23.6	221.9	(NA)	(NA)
1982 Census ----	115	169	109	9.9	198.6	7.6	14.8	136.3	371.7	663.0	1 038.7	22.7	165.5	93	93
1981 ASM ----	(NA)	(NA)	(NA)	12.0	233.0	9.6	19.5	164.8	461.8	810.6	1 267.8	54.4	202.5	(NA)	(NA)
1980 ASM ----	(NA)	(NA)	(NA)	12.7	225.5	10.3	20.8	162.3	479.2	776.6	1 258.6	39.0	166.6	(NA)	(NA)
1979 ASM ----	(NA)	(NA)	(NA)	13.1	218.2	10.6	21.9	161.3	497.5	748.4	1 236.9	31.4	195.6	(NA)	(NA)
1978 ASM ----	(NA)	(NA)	(NA)	12.7	198.0	9.9	20.3	142.8	406.6	621.6	1 031.7	27.8	147.8	(NA)	(NA)
1977 Census ----	120	184	113	12.4	180.3	9.8	20.1	128.8	389.6	551.2	937.1	31.8	135.0	94	90
1976 ASM ----	(NA)	(NA)	(NA)	11.3	149.3	8.8	17.7	105.0	320.6	433.6	752.6	19.2	125.4	(NA)	(NA)
1975 ASM ----	(NA)	(NA)	(NA)	11.0	130.5	8.6	17.0	90.6	278.3	391.7	670.6	17.3	106.6	(NA)	(NA)
1974 ASM ----	(NA)	(NA)	(NA)	12.3	137.9	9.7	20.2	98.0	336.4	423.1	751.9	11.4	145.9	(NA)	(NA)
1973 ASM ----	(NA)	(NA)	(NA)	10.6	111.0	8.8	18.1	81.5	228.6	305.2	538.2	8.0	75.5	(NA)	(NA)
1972 Census ----	99	157	99	10.2	98.9	8.1	16.7	71.2	188.8	273.5	461.3	8.4	65.9	97	86
INDUSTRY 3421, CUTLERY															
1987 Census ----	(NA)	141	62	10.5	241.0	7.9	15.1	157.9	803.1	250.7	1 054.0	57.9	174.0	(NA)	(NA)
1986 ASM ----	(NA)	(NA)	(NA)	11.7	251.2	9.1	17.2	170.2	772.9	269.5	1 045.1	47.3	177.3	(NA)	(NA)
1985 ASM ----	(NA)	(NA)	(NA)	11.8	239.9	9.4	17.3	164.6	731.7	303.9	1 043.4	43.9	180.5	(NA)	(NA)
1984 ASM ----	(NA)	(NA)	(NA)	12.1	231.8	9.6	18.1	161.7	717.9	289.9	992.4	35.2	189.2	(NA)	(NA)
1983 ASM ----	(NA)	(NA)	(NA)	12.2	222.1	9.7	18.3	155.7	723.5	238.1	972.3	34.2	173.9	(NA)	(NA)
1982 Census ----	123	132	69	13.0	223.7	10.5	20.1	161.2	683.6	256.3	938.0	44.0	185.4	96	90
1981 ASM ----	(NA)	(NA)	(NA)	12.8	200.8	10.8	20.4	147.1	613.1	251.5	854.6	21.3	167.8	(NA)	(NA)
1980 ASM ----	(NA)	(NA)	(NA)	12.8	187.8	10.9	20.6	141.9	561.6	233.1	782.6	33.3	155.2	(NA)	(NA)
1979 ASM ----	(NA)	(NA)	(NA)	14.6	184.3	12.4	22.9	139.4	553.7	223.4	771.4	31.2	151.0	(NA)	(NA)
1978 ASM ----	(NA)	(NA)	(NA)	15.7	187.0	12.9	24.8	138.3	547.3	253.8	790.0	37.9	147.4	(NA)	(NA)
1977 Census ----	119	130	62	14.9	159.6	12.1	23.5	118.3	492.0	219.1	711.4	23.3	132.1	92	94
1976 ASM ----	(NA)	(NA)	(NA)	15.3	149.8	12.2	23.5	109.0	471.3	214.0	677.0	19.5	132.0	(NA)	(NA)
1975 ASM ----	(NA)	(NA)	(NA)	14.0	130.5	11.3	21.7	93.3	405.3	190.2	590.5	17.9	120.5	(NA)	(NA)
1974 ASM ----	(NA)	(NA)	(NA)	15.0	128.1	12.4	24.9	93.9	406.4	157.6	544.8	22.7	115.3	(NA)	(NA)
1973 ASM ----	(NA)	(NA)	(NA)	13.6	108.4	11.2	22.6	77.3	338.2	122.7	461.8	18.0	84.6	(NA)	(NA)
1972 Census ----	123	134	69	13.4	102.6	10.9	22.3	73.0	322.3	112.9	427.5	11.7	81.5	91	94
INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.															
1987 Census ----	(NA)	804	315	41.9	926.3	31.3	62.6	598.0	2 254.5	1 382.0	3 629.5	119.3	762.1	(NA)	(NA)
1986 ASM ----	(NA)	(NA)	(NA)	40.3	839.7	30.2	59.8	550.0	1 968.6	1 278.1	3 242.3	105.4	779.2	(NA)	(NA)
1985 ASM ----	(NA)	(NA)	(NA)	40.6	810.7	30.7	58.2	533.1	1 948.2	1 183.2	3 136.6	96.3	755.1	(NA)	(NA)
1984 ASM ----	(NA)	(NA)	(NA)	40.8	806.8	30.5	59.7	513.6	1 865.5	1 211.9	3 060.1	94.0	766.0	(NA)	(NA)
1983 ASM ----	(NA)	(NA)	(NA)	40.0	735.0	29.6	56.0	462.0	1 751.9	1 079.2	2 869.6	79.7	719.8	(NA)	(NA)
1982 Census ----	703	786	322	40.4	706.5	29.8	55.4	448.8	1 785.2	1 103.5	2 915.5	93.2	720.1	90	91
1981 ASM ----	(NA)	(NA)	(NA)	47.3	778.6	36.4	71.0	513.3	2 011.0	1 285.4	3 261.1	81.7	636.2	(NA)	(NA)
1980 ASM ----	(NA)	(NA)	(NA)	47.2	702.2	36.1	67.6	463.5	1 799.7	1 143.9	2 947.2	85.7	579.0	(NA)	(NA)
1979 ASM ----	(NA)	(NA)	(NA)	51.1	721.9	39.9	77.6	493.3	1 887.8	1 206.0	3 038.1	87.5	579.5	(NA)	(NA)
1978 ASM ----	(NA)	(NA)	(NA)	50.2	648.4	40.1	79.4	464.3	1 636.0	1 058.2	2 648.7	82.0	538.4	(NA)	(NA)
1977 Census ----	662	724	296	47.0	566.4	36.9	72.8	394.7	1 421.4	898.7	2 279.2	72.0	487.4	91	90
1976 ASM ----	(NA)	(NA)	(NA)	41.2	466.4	32.3	63.0	321.2	1 147.8	680.9	1 817.2	61.0	379.1	(NA)	(NA)
1975 ASM ----	(NA)	(NA)	(NA)	38.0	412.3	29.8	58.4	284.4	925.5	615.7	1 542.6	61.1	365.4	(NA)	(NA)
1974 ASM ----	(NA)	(NA)	(NA)	42.0	424.1	33.4	65.9	301.2	906.8	619.3	1 478.6	52.8	364.3	(NA)	(NA)
1973 ASM ----	(NA)	(NA)	(NA)	42.2	389.8	33.3	66.2	274.5	838.8	549.2	1 387.4	47.8	303.9	(NA)	(NA)
1972 Census ----	582	626	255	39.3	343.0	31.1	62.0	240.7	780.0	473.3	1 233.1	33.5	268.1	89	88
INDUSTRY 3425, SAW BLADES AND HANDSAWS															
1987 Census ----	(NA)	136	58	7.6	174.1	5.6	11.0	113.1	404.3	257.2	655.6	22.3	127.7	(NA)	(NA)
1986 ASM ----	(NA)	(NA)	(NA)	9.3	215.6	7.0	14.1	138.2	497.8	323.3	805.6	14.2	172.2	(NA)	(NA)
1985 ASM ----	(NA)	(NA)	(NA)	8.5	183.0	6.3	13.0	114.5	417.6	270.1	701.3	28.1	143.4	(NA)	(NA)
1984 ASM ----	(NA)	(NA)	(NA)	9.3	191.5	6.8	13.5	122.2	394.2	270.7	675.0	17.8	150.2	(NA)	(NA)
1983 ASM ----	(NA)	(NA)	(NA)	7.8	145.1	5.6	11.0	90.6	300.6						

See footnotes at end of table.

Table 1. Historical Statistics for the Industry: 1987 and Earlier Years—Con.

[Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix.]

Year ¹	Companies ² (no.)	All establishments ³		All employees		Production workers			Value added by manufacture ⁴ (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories ⁴ (million dollars)	Ratios	
		Total (no.)	With 20 employees or more (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						Specialization (percent)	Coverage (percent)
INDUSTRY 3425, SAW BLADES AND HANDSAWS—Con.															
1977 Census ----	105	115	55	7.6	94.3	5.7	11.4	62.7	230.6	137.6	363.3	13.4	75.5	86	77
1976 ASM ----	(NA)	(NA)	(NA)	6.8	79.8	5.0	10.1	52.8	187.2	123.6	307.0	10.0	67.7	(NA)	(NA)
1975 ASM ----	(NA)	(NA)	(NA)	6.2	69.4	4.3	8.5	43.5	161.3	92.9	253.7	12.4	62.8	(NA)	(NA)
1974 ASM ----	(NA)	(NA)	(NA)	7.2	69.8	5.2	10.2	43.6	174.0	93.4	263.8	11.2	57.2	(NA)	(NA)
1973 ASM ----	(NA)	(NA)	(NA)	7.0	64.2	5.4	11.4	45.6	143.3	84.8	222.7	11.1	47.7	(NA)	(NA)
1972 Census ----	82	91	52	6.6	56.7	4.9	9.9	37.5	127.5	70.7	194.4	6.4	46.4	85	77
INDUSTRY 3429, HARDWARE, N.E.C.															
1987 Census ----	(NA)	1 215	515	87.0	2 058.5	67.3	130.9	1 415.9	4 578.0	3 566.8	8 148.8	247.2	1 314.1	(NA)	(NA)
1986 ASM ----	(NA)	(NA)	(NA)	82.3	1 961.4	61.9	122.7	1 337.7	4 311.4	3 393.6	7 688.9	236.5	1 300.2	(NA)	(NA)
1985 ASM ----	(NA)	(NA)	(NA)	84.7	2 032.4	65.0	128.8	1 417.7	4 411.9	3 448.4	7 860.9	233.7	1 252.7	(NA)	(NA)
1984 ASM ----	(NA)	(NA)	(NA)	87.9	1 977.0	67.8	134.0	1 374.7	4 415.0	3 189.6	7 505.9	215.3	1 293.0	(NA)	(NA)
1983 ASM ----	(NA)	(NA)	(NA)	82.3	1 717.4	63.5	125.1	1 200.2	3 947.9	2 843.0	6 752.8	162.3	1 199.9	(NA)	(NA)
1982 Census ----	1 085	1 185	486	80.1	1 520.9	60.8	114.1	1 030.2	3 320.1	2 370.6	5 740.9	174.3	1 064.5	96	94
1981 ASM ----	(NA)	(NA)	(NA)	95.9	1 720.1	74.7	143.2	1 215.2	3 666.7	2 635.9	6 259.6	301.2	1 075.8	(NA)	(NA)
1980 ASM ----	(NA)	(NA)	(NA)	97.1	1 584.0	74.6	142.7	1 106.4	3 317.3	2 399.9	5 707.3	261.5	1 053.0	(NA)	(NA)
1979 ASM ----	(NA)	(NA)	(NA)	107.3	1 632.6	84.9	163.5	1 163.0	3 622.8	2 689.2	6 231.4	158.6	1 072.5	(NA)	(NA)
1978 ASM ----	(NA)	(NA)	(NA)	105.2	1 510.4	82.3	159.8	1 076.2	3 334.8	2 472.1	5 734.5	179.0	968.2	(NA)	(NA)
1977 Census ----	1 063	1 168	464	99.2	1 359.0	77.9	156.8	977.7	3 032.6	2 239.0	5 202.6	190.2	849.7	94	94
1976 ASM ----	(NA)	(NA)	(NA)	95.1	1 203.6	73.6	146.8	844.2	2 679.8	1 960.5	4 591.4	152.6	783.4	(NA)	(NA)
1975 ASM ----	(NA)	(NA)	(NA)	88.8	1 006.9	67.3	129.8	683.2	2 109.5	1 621.2	3 773.3	113.3	725.3	(NA)	(NA)
1974 ASM ----	(NA)	(NA)	(NA)	98.1	1 008.1	72.9	148.5	692.7	2 129.4	1 595.1	3 637.5	109.3	797.2	(NA)	(NA)
1973 ASM ----	(NA)	(NA)	(NA)	103.7	1 006.8	81.8	165.4	723.6	2 147.8	1 489.3	3 577.6	149.8	628.2	(NA)	(NA)
1972 Census ----	965	1 053	482	99.9	902.6	78.8	159.9	633.2	2 023.6	1 263.8	3 239.4	91.4	536.6	94	95

Note: Establishments of single unit companies with up to 20 employees (cutoff varied by industry) were excluded from the mail portion of the census. Data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were estimated based on administrative-record information from other agencies in conjunction with industry averages. These establishments accounted for the following percent of total value of shipments: SIC 3411, 2%; SIC 3412, 6%; SIC 3421, 8%; SIC 3423, 7%; SIC 3425, 5%; SIC 3429, 9%.

¹In annual survey of manufactures (ASM) years, data are estimates based on a representative sample of establishments canvassed annually and may differ from results of a complete canvass of all establishments. ASM publication shows percentage standard errors. Unless otherwise noted, for data prior to 1972, see 1972 Census of Manufactures, vol. II, table 1a of the industry chapter.

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during year.

⁴Beginning with the 1982 Census of Manufactures, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior Censuses and annual surveys of manufactures in which respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, inventories and value added by manufacture are not comparable to prior-year data.

⁵Estimates for new capital expenditures have associated standard error of 15 percent or more and may be of limited reliability. Estimates for other data items are of acceptable reliability.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text.]

1987 product code	Product	1987			1982		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
3411--	METAL CANS						
	Total ----	(NA)	(X)	10 317.9	(NA)	(X)	10 551.9
34111 --	Steel cans and tinware products ----	(NA)	(X)	4 530.2	(NA)	(X)	5 643.7
34111 20	Steel, tinplate (including lids, ends, and parts shipped separately) ----	56	(X)	4 225.1	78	(X)	5 371.6
34111 91	Tinware end products, including ice cream cans, but excluding cooking and kitchen utensils ----	17	(X)	276.2	24	(X)	271.7
34111 00	Steel cans and tinware products, n.s.k. ----	(NA)	(X)	28.9	(NA)	(NA)	(NA)
34112 --	Aluminum cans: ----						
34112 00	Aluminum (including lids, ends, and parts shipped separately) ----	(NA)	(X)	5 626.7	(NA)	(X)	4 878.7
34110 --	Metal cans, n.s.k. ----	(NA)	(X)	161.0	(NA)	(X)	29.5
34110 00	Metal cans, n.s.k., typically for establishments with 10 employees or more (see note) ----	(NA)	(X)	99.6	(NA)	(X)	2.8
34110 02	Metal cans, n.s.k., typically for establishments with less than 10 employees (see note) ----	(NA)	(X)	61.4	(NA)	(X)	26.7

See footnotes at end of table.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987			1982		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
3412- --	METAL BARRELS, DRUMS, AND PAILS						
	Total	(NA)	(X)	1 036.7	(NA)	(X)	945.8
34121 -- 34121 00	Steel pails: Steel pails (12 gallon capacity or less) (for additional detail, see Current Industrial Report MQ-34K, Steel Shipping Drums and Pails ³)	21	(X)	191.7	25	(X)	207.8
34122 -- 34122 00	Steel shipping barrels and drums (more than 12 gallon capacity): Steel shipping barrels and drums, excluding beer barrels (more than 12 gallon capacity) (for additional detail, see Current Industrial Report MQ-34K, Steel Shipping Drums and Pails ⁴)	42	(X)	672.0	48	(X)	563.2
34123 -- 34123 13	All other metal barrels	(NA)	(X)	101.5	(NA)	(X)	139.9
34123 19 34123 00	Metal fluid milk shipping and delivery containers (except crates)	16	(S)	99.4	3	(S)	139.5
34123 00	All other metal barrels, including beer barrels and parts for metal barrels and pails	(NA)	(X)	2.1	16 (NA)	(X) (X)	.4
34120 -- 34120 00	All other metal barrels, n.s.k.	(NA)	(X)	71.5	(NA)	(X)	34.9
34120 00	Metal barrels, drums, and pails, n.s.k.	(NA)	(X)	32.4	(NA)	(X)	18.2
34120 02	Metal barrels, drums, and pails, n.s.k., typically for establishments with 5 employees or more (see note)	(NA)	(X)	39.1	(NA)	(X)	16.7
34120 02	Metal barrels, drums, and pails, n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)		(NA)	(X)	
3421- --	CUTLERY						
	Total	(NA)	(X)	1 119.8	(NA)	(X)	953.8
34211 -- 34211 11	Cutlery, scissors, shears, trimmers, and snips	(NA)	(X)	535.3	(NA)	(X)	503.5
34211 11	Table cutlery (knives, forks, spoons, etc., for the serving and eating of food, with handles of materials other than metal, including carving sets with handles of materials other than metal, excluding blades sold separately)	6	(X)	39.4	13	(X)	40.9
34211 21	Kitchen cutlery, including knives, forks, cleavers, and carving sets with metal handles	12	(X)	81.8	15	(X)	77.5
34211 42	Other knives, including pocket, pen, and replacement blade knives	24	(X)	130.9	29	(X)	134.8
34211 53	Scissors and shears, including household types, barber shears, pinkie and tailoring shears, etc., out excluding manicure, pedicure, surgical, and types reported in "all other scissors and shears"	13	(X)	52.2	15	(X)	48.7
34211 57	Metal cutting shears, including aviation and tanners' snips, BX, and wire filament cutters	13	(X)	31.2	13	(X)	41.1
34211 59	All other scissors and shears, including hedge and grass shears and pruners	12	(X)	42.1	14	(X)	35.8
34211 61	Manicure and pedicure scissors and implements (including tweezers)	6	(X)	61.4	6	(X)	59.3
34211 98	Other cutlery, including butchers' and meat packing cutlery and knife blades sold separately	15	(X)	77.9	19	(X)	64.7
34211 00	Cutlery, scissors, shears, trimmers, and snips, n.s.k.	(NA)	(X)	18.4	(NA)	(X)	.7
34212 -- 34212 00	Razor blades and razors, except electric: Razor blades and razors, except electric	6	(X)	517.7	7	(X)	431.2
34210 -- 34210 00	Cutlery, n.s.k.	(NA)	(X)	66.8	(NA)	(X)	19.1
34210 00	Cutlery, n.s.k., typically for establishments with 20 employees or more (see note)	(NA)	(X)	36.7	(NA)	(X)	(Z)
34210 02	Cutlery, n.s.k., typically for establishments with less than 20 employees (see note)	(NA)	(X)	30.1	(NA)	(X)	19.1
3423- --	HAND AND EDGE TOOLS, N.E.C.						
	Total	(NA)	(X)	3 152.4	(NA)	(X)	2 598.4
34231 --	Mechanics' hand service tools	(NA)	(X)	1 376.1	(NA)	(X)	1 330.6
34231 12	Pliers: Slip joint	11	*9.1	28.5	13	(S)	39.4
34231 13	Solid joint	13	**14.7	79.0	14	**13.1	60.5
34231 21	Ball peen hammers	7	*1.7	8.2	8	*1.2	7.7
34231 31	Wrenches: Socket, including sockets, drives (ratchet and other), extensions, etc., for hand-operated socket wrenches	23	(X)	273.1	30	(X)	309.1
34231 32	Open-end wrenches	14	(S)	28.2	16	(S)	72.2
34231 34	Box wrenches	13	(S)	17.1	12	(S)	28.5
34231 36	Torque wrenches	12	*2.6	48.4	15	(S)	35.2
34231 37	Adjustable, including pipe wrenches	11	(S)	96.5	13	*19.9	114.3
34231 38	Combination open-end and box	11	(S)	55.2	14	(S)	79.9
34231 39	All other wrenches	15	(S)	34.8	14	(S)	46.8
34231 41	Screwdrivers	19	(S)	193.3	32	(S)	117.1
34231 51	Automobile jacks, mechanical, excluding hydraulic and pneumatic	11	**15.2	80.1	12	6.8	38.2
34231 55	Tools for automotive use, excluding jacks, but including wheel and gear pullers, valve tools, body and fender tools, etc.	21	(X)	135.7	35	(X)	136.8
34231 61	Blow torches	2	(X)	(⁵)	-	(X)	-
34231 98	Other mechanics' hand service tools	53	(X)	\$252.5	73	(X)	239.1
34231 00	Mechanics' hand service tools, n.s.k.	(NA)	(X)	45.5	(NA)	(X)	5.7

See footnotes at end of table.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987			1982		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
3423- --	HAND AND EDGE TOOLS, N.E.C.—Con.						
34234 --	Edge tools, hand-operated	(NA)	(X)	245.5	(NA)	(X)	470.7
34234 11	Axes, adzes, and hatchets	10	(X)	17.2	11	(X)	32.1
34234 22	Chisels	13	(S)	28.0	17	(S)	26.2
34234 33	Professional and craft edge handtools, including knives (palette, mixing, paperhanger, pottery, putty, etc.), scrapers, trimmers, etc.	25	(X)	120.1	36	(X)	118.2
34234 44	Kitchen tools, including nonelectric can openers, peelers, slicers, dicers, etc.	2	(X)	(D)	(NA)	(NA)	(NA)
34234 98	Other edge tools, including agricultural and forestry edge handtools	23	(X)	75.6	38	(X)	77.1
34234 00	Edge tools, hand-operated, n.s.k.	(NA)	(X)	(D)	(NA)	(X)	1.2
34235 --	Dies and interchangeable cutting tools, for machines and power-driven handtools	(NA)	(X)	349.5	(NA)	(X)	215.7
34235 11	Dies, except metal cutting: Steel rule dies	31	(X)	97.8	41	(X)	61.0
34235 12	Other cutting dies, for use in cutting cloth, paper, leathers, etc., excluding dies for cutting metal	39	(X)	95.0	78	(X)	103.6
34235 21	Machine knives, except metal cutting: Veneer knives and chipper knives	7	(X)	10.9	6	(X)	15.2
34235 22	All other machines knives	27	(X)	64.4	19	(X)	35.9
34235 31	Machine tools for woodcutting: Countersink, drill, and router bits	11	(X)	46.4	(NA)	(NA)	(NA)
34235 33	Milling cutters	6	(X)	5.6	(NA)	(NA)	(NA)
34235 39	All other woodcutting machine tools	19	(X)	25.2	(NA)	(NA)	(NA)
34235 00	Dies and interchangeable cutting tools, for machines and power-driven handtools, n.s.k.	(NA)	(X)	4.2	(NA)	(NA)	(NA)
34236 --	Other handtools, n.e.c.	(NA)	(X)	880.5	(NA)	(X)	690.5
34236 11	Shovels, spades, scoops, telegraph spoons, and scrapers	8	17.8	102.6	7	6.7	39.0
34236 21	Light forged hammers, less than 4 lb, excluding ball peen hammers	14	7.0	65.0	18	*6.8	47.7
34236 31	Heavy forged tools, sledges (4 lb or more), picks, pick mattocks, and mauls	10	(S)	21.2	13	(S)	13.6
34236 41	Steel goods (forks, hoes, rakes, weeders, etc.)	10	(S)	131.9	10	(S)	102.4
34236 81	Soldering irons (electric)	9	(S)	54.0	13	7.7	59.0
34236 99	Other handtools, including woodworking and metalworking files and rasps except edge tools	80	(X)	503.2	114	(X)	425.2
34236 00	Other handtools, n.e.c., n.s.k.	(NA)	(X)	2.6	(NA)	(X)	3.8
34230 --	Hand and edge tools, n.s.k.	(NA)	(X)	300.8	(NA)	(X)	106.6
34230 00	Hand and edge tools, except machine tools and hand saws, n.e.c., n.s.k., typically for establishments with 20 employees or more (see note)	(NA)	(X)	161.9	(NA)	(X)	26.5
34230 02	Hand and edge tools, except machine tools and hand saws, n.e.c., n.s.k., typically for establishments with less than 20 employees (see note)	(NA)	(X)	138.9	(NA)	(X)	80.1
3425- --	HAND SAWS AND SAW BLADES						
	Total	(NA)	(X)	637.5	(NA)	(X)	440.9
34250 --	Hand saws, saw blades (hand and power), and saw accessories:						
	Power saw blades:						
	Woodworking (including chain saw blades):						
	Circular:						
34250 11	Solid tooth	14	(X)	55.1	20	(X)	37.8
34250 13	Inserted tooth	12	(X)	48.7	9	(X)	26.9
34250 16	Band	13	(S)	57.4	12	(S)	8.9
34250 18	Teeth for inserted saws, sold separately	6	(X)	21.2	7	(X)	16.1
34250 19	All other woodworking power saw blades (scroll, jig, etc.)	11	(S)	43.5	14	*45.7	72.7
	Metalworking:						
34250 31	Circular, including metal teeth and cutting segments sold separately	13	(S)	18.2	19	(S)	36.1
34250 35	Hack (power only)	6	(S)	5.3	11	**1.1	9.6
34250 36	Band (flexible back, spring temper metal cutting, and high-speed metal cutting)	15	(S)	152.2	18	*114.5	110.1
34250 39	Other metalworking saw blades (saber, reciprocating, etc.)	13-	(X)	25.3	17	(X)	32.2
	Hand operated saws:						
34250 43	Hacksaw blades (hand only)	10	**37.6	17.9	13	49.1	18.3
34250 45	Carpenter crosscuts and ripsaws	2	(S)	16.5	4	.7	8.3
34250 49	Other hand saws (heavy hand saws, including crosscut, buck, miter, coping, pruning, compass, etc., including hand saw frames and hand saw blades sold together, or hand saw blades sold separately)	21	(X)	130.5	16	(X)	40.0
34250 00	Hand saws, saw blades, and accessories, n.s.k., typically for establishments with 10 employees or more (see note)	(NA)	(X)	29.0	(NA)	(X)	9.3
34250 02	Hand saws, saw blades, and accessories, n.s.k., typically for establishments with less than 10 employees (see note)	(NA)	(X)	16.7	(NA)	(X)	14.6

See footnotes at end of table.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987		1982	
		Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)	Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)
3429—	HARDWARE, N.E.C.				
	Total	(NA)	7 959.7	(NA)	5 676.9
34292 —	Furniture hardware (excluding cabinet hardware)	(NA)	546.7	(NA)	272.0
34292 12	Sleeper mechanisms	4	(6)	(NA)	(NA)
34292 13	Rotating and tilting fixtures and bases	9	174.9	10	48.8
34292 14	Furniture hardware, including drawer pulls and handles, etc. (excluding furniture and drawer slides)	26	73.9	25	97.3
34292 16	Furniture and drawer slides	8	66.1	9	51.2
34292 53	Furniture casters	13	135.1	8	65.3
34292 55	Other floor protective devices, including slides, glides, furniture rests, and desk leg cups	24	55.6	9	6.1
34292 00	Furniture hardware, n.s.k.	(NA)	41.1	(NA)	3.3
34293 —	Vacuum and insulated bottles, jugs, and chests	(NA)	64.0	(NA)	120.4
34293 15	Vacuum (air-evacuated) bottles, pitchers, servers, etc.	1	(D)		
34293 17	Insulated (portable and other than air-evacuated) picnic jugs, picnic chests, coolers, etc. (except those made principally of plastics)	4	(D)	6	120.4
34293 00	Vacuum and insulated bottles, jugs, and chests, n.s.k.	(NA)	(D)	(NA)	—
34294 —	Builders' hardware	(NA)	2 890.1	(NA)	2 057.2
	Padlocks:				
34294 12	Pin tumbler	17	96.3	17	73.9
34294 13	Nonpin tumbler	5	(D)	9	36.9
34294 14	Combination	4	(D)	9	35.3
	Doorlocks, locksets, and lock trim:				
34294 16	Bored, cylindrical and tubular, except deadlocks	21	473.1	21	333.9
34294 17	Mortise, except mortise deadlocks	14	103.5	16	94.7
34294 18	Tubular and mortise deadlocks	18	86.3	23	74.5
34294 19	Electronically or electrically operated locks	15	22.6	8	14.6
34294 22	All other types	22	85.2	20	90.3
34294 23	Architectural trim (sold separately), including protection plates, push plates, pulls, push-pull bars, and lock trim, n.e.c.	17	78.8	26	46.1
34294 24	Key blanks	19	57.2	16	30.0
34294 27	Exit devices, including fire exit hardware	12	111.6	11	61.6
34294 33	Screen and storm door hardware, including pneumatic and hydraulic closers	11	57.3	10	42.5
34294 36	Window hardware (including window locks)	36	207.9	23	77.9
34294 37	Miscellaneous closet hardware, including shelving other than wire and decorative shelving	13	42.4	15	27.2
	Door controls, closers, and checking devices:				
34294 42	Surface applied	9	82.5	9	84.2
34294 43	Concealed (overhead, in the door, or on the floor)	7	32.5	9	18.9
34294 44	Electromechanical-pneumatic (with hold-open mechanism released by integral or remote smoke detector)	5	12.4	11	25.8
	Hinges, excluding cabinet hinges, but including spring hinges:				
	Butt hinges:				
34294 52	3 1/2 in. x 3 1/2 in. or less	14	47.3	13	44.5
34294 53	More than 3 1/2 in. x 3 1/2 in., either dimension	14	144.4	14	90.4
34294 54	Other	24	115.7	20	54.5
	Cabinet hardware:				
34294 61	Cabinet hinges	12	58.6	17	46.8
34294 62	Cabinet locks	12	40.4	12	27.1
34294 64	Cabinet knobs, pulls, and catches	21	80.7	24	57.0
34294 66	Other cabinet hardware, including drawer slides, etc.	17	122.6	19	81.2
34294 71	Hangers, tracks, and related items (except sliding and folding door hardware), residential and commercial	21	68.5	24	104.2
34294 73	Sliding and folding door hardware (residential and commercial)	32	83.4	26	60.8
34294 81	Door holders and stops (overhead, surface, and concealed, floor and wall mounted)	14	28.1	11	19.0
34294 91	Rim locks and other locking devices, n.e.c.	13	21.7	18	97.2
34294 98	Other builders' hardware	57	309.8	75	185.2
34294 00	Builders' hardware, n.s.k.	(NA)	161.3	(NA)	20.9
34296 —	Motor vehicle hardware:				
34296 00	Motor vehicle hardware, including lock units, door and window handles, window regulators, hinges, license plate brackets, instrument panel knobs, etc.	64	2 756.0	73	1 999.4
34297 —	Other transportation equipment hardware, except motor vehicle hardware ..	(NA)	372.6	(NA)	274.2
34297 11	Marine hardware, including shackles, rope sockets, tackle blocks, wire rope clips, clamps, and joiners' hardware	55	169.0	50	126.5
34297 31	Aircraft hardware	25	82.9	29	71.1
34297 98	Other transportation equipment hardware, including railroad car hardware ..	27	73.0	24	73.8
34297 00	Other transportation equipment hardware, except motor vehicle hardware, n.s.k.	(NA)	47.7	(NA)	2.8
34298 —	Other hardware, n.e.c.	(NA)	737.9	(NA)	667.5
34298 12	Casket and casket shell hardware	13	26.5	12	25.4
34298 22	Casters and wheels, for dollies and industrial hand trucks	19	178.8	25	137.4
34298 32	Trunk and luggage hardware, including locks	8	7.2	11	33.3
34298 52	Fireplace fixtures and equipment, andirons, screens, tongs, and other fire tools	18	91.5	28	106.3
34298 62	Hose fittings and couplings, including garden hose, beverage hose, etc. (excluding fittings and couplings used in fluid power systems)	30	150.0	36	110.6
34298 65	Refrigerator and stove hardware	9	36.4	8	16.9
34298 99	Other hardware, including saddlery and harness hardware, but excluding drapery hardware	(NA)	205.3	86	235.4
34298 00	Other hardware, n.e.c., n.s.k.	(NA)	42.3	(NA)	2.2

See footnotes at end of table.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987		1982	
		Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)	Number of companies with shipments of \$100,000 or more	Value of product shipments ¹ (million dollars)
3429--	HARDWARE, N.E.C.—Con.				
34290 --	Hardware, n.e.c., n.s.k.	(NA)	592.9	(NA)	286.2
34290 00	Hardware, n.e.c., n.s.k., typically for establishments with 20 employees or more (see note)	(NA)	371.9	(NA)	124.4
34290 02	Hardware, n.e.c., n.s.k., typically for establishments with less than 20 employees (see note)	(NA)	221.0	(NA)	161.8

Note: In 1987 Census of Manufactures, data for establishments of small single unit companies with up to 20 employees were estimated from administrative-record data rather than data actually collected from respondents. Employment cutoffs used for administrative records for each industry and shipments figures are included in code ending with "002". In both 1987 and 1982 Censuses of Manufactures, products not completely identified on standard forms were coded in appropriate product class (five-digit) followed by "00" or to appropriate product group code (four-digit) followed by "000".

¹Data reported by all producers, not just those with shipments of \$100,000 or more.

²For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

³Steel shipping packages, kegs, and pails are defined as single-walled shipping containers with a range of capacity from 1 to 12 gallons inclusive, constructed of steel sheet of 29 gauge or heavier. This definition does not include tin cans (packers' cans, general line cans, and beer cans), terneplate oil containers, fluid milk shipping containers, ice cream cans, gas cylinders, beer barrels, reconditioned barrels and drums, or containers not commercially usable in transportation of commodities.

⁴Steel shipping barrels are defined as single-walled cylindrical or bilged shipping containers, constructed of steel, with a range of capacity from 12 to 132 gallons. This definition does not include tin cans (packers' cans, general line cans, and beer cans), terneplate oil containers, high and low pressure gas steel cylinders, fluid milk shipping containers, ice cream cans, or containers not commercially usable in transportation of commodities.

⁵For 1987, product code 34231 61 is included in product code 34231 98.

⁶For 1987, product code 34292 12 is included with product code 34292 00.

Table 3. Materials Consumed by Kind: 1987 and 1982

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
	INDUSTRY 3411, METAL CANS				
	Materials, parts, containers, and supplies	(X)	6 643.1	(X)	6 675.7
	Mill shapes and forms, except castings:				
	Carbon steel:				
331012	Sheet and strip ----- 1,000 s tons..	(S)	232.1	76.4	59.3
331018	Tinplate, tin free steel, terneplate, and blackplate ----- do..	2 567.8	2 036.3	**3 048.8	2 374.7
331017	Wire and wire products ----- do..	(D)	(D)	67.6	85.3
331019	All other carbon steel mill shapes and forms ----- do..	(D)	(D)	145.8	106.3
331020	Alloy steel, except stainless ----- do..	(D)	(D)		
	Aluminum and aluminum-base alloy:				
335301	Sheet, plate, and foil ----- mil lb..	2 155.7	2 394.2	1 920.0	1 976.5
335008	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, extruded shapes, etc.) ----- do..	*784.9	850.6	1 225.4	647.4
335104	Copper mechanical wire (including extruded and/or drawn shapes) ----- do..	56.9	23.9	(NA)	(NA)
289100	Adhesives and sealants ----- do..	**23.8	24.1	(NA)	(NA)
341105	Lids, ends, and parts for metal cans ----- do..	(X)	132.4	(X)	729.2
285101	Paints, varnishes, lacquers, shellacs, japans, and enamels ----- 1,000 gal..	29 236.1	192.8	*32 129.3	234.6
265001	Paperboard boxes, containers, and corrugated paperboard ----- do..	(X)	25.2	(X)	35.2
334130	Lead-base and tin-base solder ----- 1,000 s tons..	(S)	6.3	(S)	20.5
346901	Metal stampings, excluding can lids, ends, and parts ----- do..	(X)	5.2	(X)	1.8
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes ----- do..	(X)	5.8	(X)	2.0
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and other shapes ----- mil lb..	(S)	9.8	*30.5	13.9
289300	Printing ink ----- do..	(S)	33.5	(S)	35.4
970099	All other materials and components, parts, containers, and supplies ----- do..	(X)	296.9	(X)	315.0
971000	Materials, parts, containers, and supplies, n.s.k. ² ----- do..	(X)	156.2	(X)	38.6
	INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS				
	Materials, parts, containers, and supplies	(X)	724.2	(X)	629.8
	Mill shapes and forms, except castings and forgings:				
	Carbon steel:				
331012	Sheet and strip ----- 1,000 s tons..	593.9	329.5	**646.0	315.3
331018	Tinplate, tin free steel, terneplate, and blackplate ----- do..	105.4	66.2	*66.6	36.4
331017	Wire and wire products ----- do..	*2.1	1.7	*3.6	2.0
331019	All other carbon steel mill shapes and forms ----- do..	(D)	(D)	(D)	(D)
331020	Alloy steel, except stainless ----- do..	(D)	(D)	(D)	(D)
	Aluminum and aluminum-base alloy:				
335301	Sheet, plate, and foil ----- mil lb..	(S)	10.5	(D)	(D)
335008	All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, extruded shapes, etc.) ----- do..	(D)	(D)	(D)	(D)

See footnotes at end of table.

Table 3. **Materials Consumed by Kind: 1987 and 1982—Con.**

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS—Con.					
335104	Copper mechanical wire, including extruded and/or drawn shapes ----- mil lb-----	(D)	(D)	(NA)	(NA)
289100	Adhesives and sealants ----- do-----	(S)	1.5	(NA)	(NA)
341105	Lids, ends, and parts for metal cans -----	(S)	25.9	(X)	-
285101	Paints, varnishes, lacquers, shellacs, japans, and enamels ----- 1,000 gal-----	2 110.7	25.6	**3 193.5	28.2
265001	Paperboard boxes, containers, and corrugated paperboard -----	(X)	3.1	(X)	3.3
334130	Lead-base and tin-base solder ----- 1,000 s tons-----	*.1	.1	(D)	(D)
346901	Metal stampings, excluding can lids, ends, and parts -----	(X)	11.8	(X)	4.2
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes -----	(X)	2.0	(X)	.7
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and other shapes ----- mil lb-----	(D)	(D)	(S)	12.2
289300	Printing ink ----- do-----	(S)	.4	.1	.4
970099	All other materials and components, parts, containers, and supplies -----	(X)	135.6	(X)	109.5
971000	Materials, parts, containers, and supplies, n.s.k. ² -----	(X)	53.3	(X)	54.9
INDUSTRY 3421, CUTLERY					
Materials, parts, containers, and supplies -----		(X)	202.4	(X)	200.9
Mill shapes and forms, except castings and forgings:					
Carbon steel:					
331011	Bars and bar shapes ----- 1,000 s tons-----	**8.3	4.4	**8.3	3.9
331012	Sheet and strip ----- do-----	**9.8	10.9	**18.6	14.0
331013	Plates ----- do-----	-	-	-	-
331017	Wire and wire products ----- do-----	**4	.4	-	-
331019	All other carbon steel mill shapes and forms ----- do-----	-	-	.5	.6
Alloy steel, except stainless:					
331021	Bars and bar shapes ----- 1,000 s tons-----	(D)	(D)	-	-
331029	All other alloy steel mill shapes and forms ----- do-----	(D)	(D)	15.3	7.4
Stainless steel:					
331033	Sheet and strip ----- 1,000 s tons-----	(S)	46.0	(S)	31.6
331050	All other stainless steel mill shapes and forms ----- do-----	(D)	(D)	(S)	1.0
335105	Copper and copper-base alloy mill shapes and forms ----- mil lb-----	*2.1	3.1	(S)	8.5
335007	Aluminum and aluminum-base alloy mill shapes and forms ----- do-----	2.5	4.4	3.0	5.4
Castings (rough and semifinished):					
332011	Iron (gray and malleable) ----- 1,000 s tons-----	(D)	(D)	.1	.3
332045	Steel ----- do-----	(D)	(D)	-	-
336005	Aluminum and aluminum-base alloy ----- mil lb-----	(S)	.9	.2	.1
Iron and steel forgings:					
346201	Cold ----- 1,000 s tons-----	(D)	(D)	-	-
346209	Other ----- do-----	(D)	(D)	1.4	5.6
249991	Wood parts, including handles -----	(X)	5.0	(X)	6.0
354501	Cutting tools for machine tools -----	(X)	.2	(X)	.6
282104	Plastic resins consumed in the form of granules, pellets, powders, liquids, but excluding sheets, rods, tubes, and other shapes ----- mil lb-----	*25.2	13.5	(S)	19.1
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes -----	(X)	4.6	(X)	5.6
308006	Fabricated plastics products, except gaskets -----	(X)	11.8	(NA)	(NA)
345001	Bolts, nuts, screws, rivets, and screw machine products -----	(X)	4.6	(NA)	(NA)
329101	Grinding wheels and other abrasive products, except industrial diamonds -----	(X)	4.9	(NA)	(NA)
260091	Paper and paperboard containers including shipping sacks and other packaging supplies -----	(X)	20.0	(X)	23.5
970099	All other materials and components, parts, containers, and supplies -----	(X)	23.0	(X)	48.4
971000	Materials, parts, containers, and supplies, n.s.k. ² -----	(X)	25.1	(X)	19.3
INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.					
Materials, parts, containers, and supplies -----		(X)	1 022.0	(X)	843.1
Mill shapes and forms, except castings forgings:					
Carbon steel:					
331011	Bars and bar shapes ----- 1,000 s tons-----	**208.2	166.7	(S)	184.2
331012	Sheet and strip ----- do-----	*135.4	93.7	*77.4	58.6
331013	Plates ----- do-----	(S)	1.5	(S)	3.9
331017	Wire and wire products ----- do-----	11.1	11.1	**14.1	7.1
331019	All other carbon steel mill shapes and forms ----- do-----	(S)	5.6	(S)	9.6
Alloy steel, except stainless:					
331021	Bars and bar shapes ----- 1,000 s tons-----	**37.3	45.1	(S)	41.2
331029	All other alloy steel mill shapes and forms ----- do-----	(S)	14.3	(S)	11.3
Stainless steel:					
331033	Sheet and strip ----- 1,000 s tons-----	(S)	9.1	.7	6.7
331050	All other stainless steel mill shapes and forms ----- do-----	(S)	10.4	(S)	1.5
335105	Copper and copper-base alloy mill shapes and forms ----- mil lb-----	(S)	10.3	(S)	3.9
335007	Aluminum and aluminum-base alloy mill shapes and forms ----- do-----	(S)	8.1	*5.8	6.6
Castings (rough and semifinished):					
332011	Iron (gray and malleable) ----- 1,000 s tons-----	*11.0	23.9	*13.4	23.0
332045	Steel ----- do-----	(S)	9.3	(S)	15.8
336005	Aluminum and aluminum-base alloy ----- mil lb-----	(S)	16.6	**5.5	12.3
Iron and steel forgings:					
346201	Cold ----- 1,000 s tons-----	(S)	27.0	(S)	9.8
346209	Other ----- do-----	(S)	27.0	(S)	19.5
249991	Wood parts, including handles -----	(X)	33.6	(X)	20.8
354501	Cutting tools for machine tools -----	(X)	13.6	(X)	6.4

See footnotes at end of table.

Table 3. Materials Consumed by Kind: 1987 and 1982—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
	INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.—Con.				
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, but excluding sheets, rods, tubes, and other shapes ----- mil lb..	*16.2	15.4	(S)	11.8
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes -----	(X)	9.4	(X)	18.1
308006	Fabricated plastics products, except gaskets -----	(X)	28.3	(NA)	(NA)
345001	Bolts, nuts, screws, rivets, and screw machine products -----	(X)	33.0	(NA)	(NA)
329101	Grinding wheels and other abrasive products, except industrial diamonds -----	(X)	14.6	(NA)	(NA)
260091	Paper and paperboard containers and other paper packaging supplies -----	(X)	30.6	(X)	34.2
970099	All other materials and components, parts, containers, and supplies -----	(X)	236.8	(X)	221.9
971000	Materials, parts, containers, and supplies, n.s.k. ² -----	(X)	128.6	(X)	114.9
	INDUSTRY 3425, SAW BLADES AND HANDSAWS				
	Materials, parts, containers, and supplies -----	(X)	206.2	(X)	185.4
	Mill shapes and forms, except castings and forgings:				
	Carbon steel:				
331011	Bars and bar shapes ----- 1,000 s tons..	7.9	4.3	**5.5	3.9
331012	Sheet and strip ----- do..	*27.8	43.1	*20.9	36.8
331013	Plates ----- do..	(S)	2.3	11.1	8.6
331017	Wire and wire products ----- do..	(D)	(D)	.7	2.6
331019	All other carbon steel mill shapes and forms ----- do..	(S)	2.8	(S)	2.1
	Alloy steel, except stainless:				
331021	Bars and bar shapes ----- 1,000 s tons..			1.3	2.5
331029	All other alloy steel mill shapes and forms ----- do..	*14.3	47.8	*9.8	26.6
	Stainless steel:				
331033	Sheet and strip ----- 1,000 s tons..	(D)	(D)	(D)	(D)
331050	All other stainless steel mill shapes and forms ----- do..	(D)	(D)	(D)	(D)
335105	Copper and copper-base alloy mill shapes and forms ----- mil lb..	(D)	(D)	(D)	(D)
335007	Aluminum and aluminum-base alloy mill shapes and forms ----- do..	-	-	(D)	(D)
	Castings (rough and semifinished):				
332011	Iron (gray and malleable) ----- 1,000 s tons..	(D)	(D)	(D)	(D)
332045	Steel ----- do..	(D)	(D)	(D)	(D)
336005	Aluminum and aluminum-base alloy ----- mil lb..	(D)	(D)	(D)	(D)
	Iron and steel forgings:				
346201	Cold ----- 1,000 s tons..	(D)	(D)	-	-
346209	Other ----- do..	-	-	(D)	(D)
249991	Wood parts, including handles -----	(X)	(D)	(X)	1.4
354501	Cutting tools for machine tools -----	(X)	(D)	(X)	1.2
282104	Plastic resins consumed in the form of granules, pellets, powders, liquids, but excluding sheets, rods, tubes, and other shapes ----- mil lb..	(D)	(D)	*.1	.1
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes -----	(X)	.1	(X)	1.0
308006	Fabricated plastics products, except gaskets -----	(X)	1.3	(NA)	(NA)
345001	Bolts, nuts, screws, rivets, and screw machine products -----	(X)	(D)	(NA)	(NA)
329101	Grinding wheels and other abrasive products, except industrial diamonds -----	(X)	3.3	(NA)	(NA)
260091	Paper and paperboard containers and other paper packaging supplies -----	(X)	4.6	(X)	4.4
970099	All other materials and components, parts, containers, and supplies -----	(X)	44.4	(X)	76.7
971000	Materials, parts, containers, and supplies, n.s.k. ² -----	(X)	20.8	(X)	12.0
	INDUSTRY 3429, HARDWARE, N.E.C.				
	Materials, parts, containers, and supplies -----	(X)	3 184.2	(X)	2 107.4
	Mill shapes and forms, except castings:				
	Carbon steel:				
331011	Bars and bar shapes ----- 1,000 s tons..	(S)	96.4	(S)	54.9
331012	Sheet and strip ----- do..	**578.3	371.2	**589.2	339.3
331013	Plates ----- do..	**12.3	5.8	(S)	4.8
331017	Wire and wire products ----- do..	(S)	45.4	(S)	28.7
331019	All other carbon steel mill shapes and forms ----- do..	*122.0	72.4	18.9	10.8
331020	Alloy steel, except stainless ----- do..	(S)	12.3	(S)	11.9
	Stainless steel:				
331033	Sheet and strip ----- 1,000 s tons..	(S)	74.0	(S)	43.4
331050	All other stainless steel mill shapes and forms ----- do..	(S)	24.9	**8.3	26.2
	Copper and copper-base alloy:				
335728	Bare wire (for electrical conduction only) ----- mil lb..	.1	.2	**5	.5
335102	Rod, bar, and mechanical wire, including extruded and/ or drawn shapes ----- do..	*25.9	25.3	**27.7	37.1
335143	Plate, sheet, and strip, including military cups and discs ----- do..	46.5	52.0	*27.0	37.2
335152	Pipe and tube ----- do..	*2.6	3.5	(S)	4.5
	Aluminum and aluminum-base alloy:				
335301	Sheet, plate, and foil ----- mil lb..	*34.9	55.5	*41.8	56.9
335405	Extruded shapes ----- do..	(S)	28.9	(S)	22.1
335008	All other aluminum mill shapes and forms ----- do..	1.5	2.5	1.9	3.2
	Primary metals:				
333122	Copper and copper-base alloy refinery shapes ----- 1,000 s tons..	(S)	8.4	(D)	32.4
333348	Zinc and zinc-base alloy refinery shapes ----- do..	*40.6	37.6	*44.1	36.5
333401	Aluminum and aluminum-base alloy refinery shapes ----- do..	(S)	1.9	**8	1.3
339915	Metal powders ----- mil lb..	**40.3	21.6	(S)	8.2

See footnotes at end of table.

Table 3. Materials Consumed by Kind: 1987 and 1982—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
	INDUSTRY 3429, HARDWARE, N.E.C.—Con.				
	Castings (rough and semifinished):				
332011	Iron (gray and malleable) 1,000 s tons..	(S)	15.3	(S)	33.7
332045	Steel do..	(S)	25.1	(S)	16.1
336005	Aluminum and aluminum-base alloy mil lb..	(S)	22.8	(S)	20.6
336006	Copper and copper-base alloy do..	(S)	21.0	(S)	18.0
336009	Zinc and zinc-base alloy do..	(S)	29.4	(NA)	(NA)
336007	Other nonferrous do..	(S)	2.9	(NA)	(NA)
265001	Paperboard boxes, containers, and corrugated paperboard	(X)	66.5	(X)	49.1
308006	Fabricated plastics products, except gaskets	(X)	92.3	(NA)	(NA)
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes	-	33.9	(X)	27.0
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and shapes mil lb..	**85.6	103.2	102.2	88.9
320100	Glass and glass products	(X)	34.5	(X)	13.8
342903	Metal hardware, including hinges, locks, casters, handles, etc.	(X)	183.0	(X)	92.7
346901	Metal stampings 1,000 s tons..	*67.2	114.8	(S)	29.5
345001	Bolts, nuts, screws, rivets, and screw machine products	(X)	168.7	(X)	57.2
362101	Electric motors, generators, and parts	(X)	(D)	(X)	69.4
306902	Fabricated rubber products, except tires, tubes, hose, belting, and gaskets	(X)	(D)	(X)	12.7
356200	Ball and roller bearings, mounted and unmounted	(X)	11.7	(NA)	(NA)
349012	Fabricated wire products 1,000 s tons..	(S)	11.9	(X)	10.7
970099	All other materials and components, parts, containers, and supplies	(X)	699.7	(X)	591.2
971000	Materials, parts, containers, and supplies, n.s.k. ²	(X)	376.8	(X)	216.9

¹For some establishments, data have been estimated from central unit values which are based on quantity-cost relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

²Total cost of materials of establishments that did not report detailed materials data, including establishments that were not mailed a form.



APPENDIX

Scope and Coverage and Explanation of Terms

GENERAL

The 1987 Census of Manufactures is the 32nd census of manufacturing establishments conducted in the United States. For 1987, it was conducted as part of the economic censuses, which included the censuses of mineral industries, construction industries, retail and wholesale trades, service industries, selected transportation activities, and minority-owned and women-owned businesses, under authority of title 13 of the United States Code. Title 13 specifies that an economic census be conducted every 5 years to cover years ending in 2 and 7.

SCOPE AND COVERAGE

Establishment Basis of Reporting

The census of manufactures is conducted on an establishment basis. All manufacturing establishments with one paid employee or more at any time during the year are covered by the census of manufactures. Therefore, a company operating at more than one location is required to file a separate report for each location. This report excludes information for separately operated administrative offices, warehouses, garages, and other auxiliary units which service manufacturing establishments of the same company. Where these auxiliary operations are conducted at the same location as the manufacturing operation, they are usually included in the report for the operating manufacturing establishment.

Use of Administrative Records

From a universe of approximately 350,000 manufacturing establishments in the 1987 Census of Manufactures, approximately 150,000 small single-establishment companies were excused from filing reports. Selection of the small establishment nonmail cases was done on an industry-by-industry basis. A variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. The cutoffs were selected so the administrative-record cases would account for approximately 3 percent or less of the value of shipments for the industry. These cutoffs were then adjusted so that all single-establishment companies with less than 5 employees were excluded from the mail canvass, while all establishments with more than 20 employees were included. Where establishments in the 5 to 20 employee size range were included in the mail canvass, an abbreviated census form was frequently used.

For these nonmail establishments, (and a small number of larger establishment whose reports were not received at the time the data were tabulated) data on employment, payroll, and receipts were obtained from administrative records of other government agencies rather than from census forms. The administrative-record information was then used in conjunction with industry averages to estimate the data for these establishments. The value of shipments and cost of materials were not distributed among specific products and materials but were included in the product and material "not specified by kind" (n.s.k.) categories.

EXPLANATION OF TERMS

Number of establishments and companies—A separate report was required for each manufacturing establishment (plant) with one employee or more. An establishment is defined as a single physical location where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

All employees—Includes all full-time and part-time employees on the payrolls at any time during the year. Included are all persons on paid sick leave, paid holidays, and paid vacations. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employees" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for midmonth payroll periods of March, May, August, and November.

Production workers—Includes workers up through the working-supervisor level engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, guard services, product development, auxiliary production for plant's own use (e.g., power-plant), recordkeeping, and other closely associated services. Truckdrivers delivering ready-mixed concrete are also included in production workers.

Other employees—Includes nonproduction personnel, including those engaged in the following activities: supervision above working-supervisor level, sales (including driver/salespersons), sales delivery (truckdrivers and helpers), advertising, credit collection, installation and

servicing of own product, clerical and routine office functions, executive, purchasing, finance, legal, personnel (including cafeteria, etc.), professional, and technical employees.

Payroll—Includes the gross earnings for the “employees” defined above, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees’ Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

Production-worker hours—Covers hours worked or paid for at the plant, including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

Cost of materials—Refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuels consumed, regardless of whether they were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or generating electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

Specific materials consumed (table 3)—In addition to the total cost of materials which every establishment was required to report, information was also collected for most manufacturing industries on the consumption of major materials used in manufacturing. These inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers’ records. Establishments consuming less than a specified amount (usually \$10,000) of a specific material were not requested to report consumption of that material separately. Also, the cost of materials for the small establishments for which administrative records were used was estimated as “not specified by kind” (n.s.k.).

Value of shipments and other receipts—Generally refers to received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all

miscellaneous receipts such as receipts for contract work performed for others, installation and repair receipts, sale of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishment from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

In a few industries, the value of production or value of work completed is used instead of value of shipments. These industries are identified in the introduction and are footnoted in table 1.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value, that is, including not only the direct costs of production but also a reasonable proportion of “all other costs” (including company overhead and profit).

Shipments or production of individual products (table 2)—In the 1987 census, detailed shipment information was collected for approximately 11,000 individual products. These products are identified by a seven-digit code and are grouped into approximately 1,500 classes of products, which in turn are primary to 459 four-digit industries. Data at the five-digit product-class level have been collected each year as part of the annual survey of manufactures. Information at the seven-digit level, collected for many industries in the current industrial reports program, is not included in this table.

Value added by manufacture—This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacturing, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

For those industries where value of production is collected instead of value of shipments (see footnote in table 1), value added is adjusted only for the change in work-in-process inventories between the beginning and end of the year. For those industries where value of work done is collected, the value added does not include an adjustment for the change in finished goods or work-in-process inventories.

Value added avoids the duplication in the figure for value of shipments which results from the use of products of some establishments as materials by others. Value

added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

Expenditures for new plant and equipment—Establishments in operation and any known plants under construction were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments and (b) new machinery and equipment used for replacement and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expenses. Data for used plant and equipment will be published in the final industry bulletin.

End-of-year inventories—Comprised of (a) finished products; (b) work-in-process; and (c) materials, supplies, fuels, etc. Beginning in 1982, respondents were asked to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior years in which respondents were permitted to value their inventories using any generally accepted accounting method.

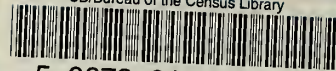
Therefore, 1982 through 1987 data for inventories are not strictly comparable to prior-year data.

Specialization and coverage ratios—An establishment is classified in a particular industry if its shipments of primary products of the industry exceed in value its shipments of the products of any other single industry. An establishments' shipments include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), and receipts for miscellaneous activities (merchandising, contract work, resales, etc.). The following ratios have been developed to measure the relationship of primary product shipments to the data on shipments for the industry shown in table 1 and data on product shipments shown in table 2.

Specialization ratio—Represents the ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for the establishments classified in the industry.

Coverage ratio—Represents the ratio of primary products shipped by the establishments classified in the industry to the total shipments of such products that are shipped by all manufacturing establishments, wherever classified.

CB/Bureau of the Census Library



5 0673 01031344 6